



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-1120; Project Identifier 2019-SW-056-AD]

RIN 2120-AA64

Airworthiness Directives; Goodrich Externally-Mounted Hoist Assemblies

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (SNPRM).

SUMMARY: The FAA is revising a notice of proposed rulemaking (NPRM) for various model helicopters with certain part-numbered Goodrich externally-mounted hoist assemblies (hoists) installed. This action revises the NPRM by adding a figure and revising certain requirements. The FAA is proposing this airworthiness directive (AD) to address the unsafe condition on these products. Since some of these actions would impose an additional burden over those in the NPRM, the agency is requesting comments on this SNPRM.

DATES: The FAA must receive comments on this SNPRM by [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For Goodrich service information identified in this SNPRM, contact Collins Aerospace; 2727 E Imperial Hwy., Brea, CA 92821; telephone (714) 984-1461. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-1120; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, this SNPRM, the European Union Aviation Safety Agency (EASA) AD, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Kristi Bradley, Aerospace Engineer, General Aviation & Rotorcraft Section, International Validation Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email kristin.bradley@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2020-1120; Project Identifier 2019-SW-056-AD” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA

will consider all comments received by the closing date and may again revise this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this SNPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this SNPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this SNPRM. Submissions containing CBI should be sent to Kristi Bradley, Aerospace Engineer, General Aviation & Rotorcraft Section, International Validation Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email kristin.bradley@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued an NPRM that proposed to amend 14 CFR part 39 by adding an AD that would apply to various model helicopters with certain part-numbered externally-mounted Goodrich hoists installed. The NPRM published in the *Federal Register* on

December 11, 2020 (85, FR 79930). In the NPRM, the FAA proposed to require replacing unmodified hoists, installing placards, revising the existing Rotorcraft Flight Manual (RFM) for your helicopter, deactivating or removing a hoist if a partial peel out occurs, reviewing the helicopter's hoist slip load test records, repetitively inspecting the hoist cable and overload clutch (clutch), and reporting information to the FAA.

The NPRM was prompted by a series of EASA ADs, the most recent being EASA AD 2015-0226R5, Revision 5, dated July 23, 2020 (EASA AD 2015-0226R5), to correct an unsafe condition for various model helicopters with a Goodrich externally-mounted hoist with one of the following part numbers (P/Ns) or base P/Ns installed: 42315, 42325, 44301-10-1, 44301-10-2, 44301-10-4, 44301-10-5, 44301-10-6, 44301-10-7, 44301-10-8, 44301-10-9, 44301-10-10, 44301-10-11, 44311, 44312, 44314, 44315, 44316, or 44318. EASA advises of an initial incident of a rescue hoist containing a dummy test load of 552 lbs. that reeled-out without command of the operator and impacted the ground during a maintenance check flight, because the overload clutch had failed. EASA states that this condition, if not detected and corrected, could lead to further cases of in-flight loss of the hoist load, possibly resulting in injury to persons on the ground or in a hoisting accident.

Accordingly, EASA AD 2015-0226R5 requires a records review to determine if the cable has exceeded the allowable limit in previous load testing, a repetitive load check and test of the clutch slip value, removal or deactivation of a hoist that cannot be tested due to lack of approved instructions, replacement of the old clutch P/N with a new clutch developed by Goodrich to mitigate some of the factors resulting in clutch degradation, periodic replacement of the hoist, reduction of the maximum allowable load on the hoist, addition of operational limitations to the RFM, and replacement of the hoist after a partial peel out. EASA AD 2015-0226R5 also prohibits the installation of a replacement cable that has exceeded the allowable limit in previous load testing. EASA

considers AD 2015-0226R5 to be interim action and advises further AD action may follow.

Comments

The FAA received comments from three commenters. The commenters were EASA, Collins Aerospace, and an individual. The following discussion presents the comments received on the NPRM and the FAA's response.

Request to Clarify Interval Between Overhaul

EASA requested the FAA clarify why the proposed AD does not include the reduced time interval between overhaul that is required by EASA's AD. EASA stated that based on the occurrences and design review, its AD limits the time between overhaul to 24 months, 1,200 cycles, or 1,600 lifts, which can be extended to 40 months or 2,600 lifts if tests and documentation are provided to EASA.

The FAA's proposed AD and EASA's AD differ in that the EASA AD requires repetitive replacement or overhaul of all affected hoists, while the FAA's proposed AD would require a one-time replacement of affected hoists that have not been modified with a new overload clutch assembly (and re-identified with a "4" as the first digit of the serial number (S/N)). Since the proposed AD would also prohibit installation of a hoist unless it has a "4" as the first digit of the S/N, this would have the effect of requiring replacement of a non-modified hoist with a modified hoist. The FAA acquired data from Collins Aerospace that showed over 1,000 field load checks of hoists with a new overload clutch assembly with no reports of low pulling clutches or peel out events. The FAA evaluated this data and determined that it does not substantiate a 24-month repetitive replacement or overhaul of hoists that have been modified with the new overload clutch assembly. The FAA considers this AD action to be an interim action, and using the additional data

reported following issuance of this AD, will re-evaluate this determination if needed.

Request Regarding Replacement of the Hoist

One commenter requested the FAA allow installing a new clutch assembly instead of requiring “scrapping” the entire hoist, if the hoist does not have the number “4” as the first digit of its S/N.

The FAA agrees. The requirement proposed by this AD to replace a hoist without the number “4” as the first digit of its S/N with a modified hoist would not require removing the hoist from service. The proposed requirement states to “replace” the hoist. This would not prohibit re-installing a hoist after modifying it to install a new overload clutch assembly and (re)-identifying it with a “4” as the first digit of the S/N. No changes to this proposed AD are necessary as a result of this comment.

Safety Concern Addressed by Existing AD

One commenter stated that this clutch safety concern has already been addressed by AD 2013-06-51 (78 FR 38826, June 28, 2013) (AD 2013-06-51), Goodrich Alert Service Bulletin (ASB) No. 44301-10-15, dated March 8, 2013 (ASB 44301-10-15), and Goodrich ASB No. 44301-10-18, Revision 6, dated October 10, 2016 (ASB 44301-10-18).

The FAA agrees that ASB 44301-10-18 specifies procedures to address this issue. However, while an operator may incorporate the procedures in this service bulletin into its inspection program, not all operators are required to do so. In order for these procedures to become mandatory, and to correct the unsafe condition identified in the NPRM, the FAA must issue an AD. Further, AD 2013-06-51 (and ASB 44301-10-15, which is mandated by AD 2013-06-51) requires a one-time cable conditioning lift and load inspection test as interim corrective action. AD 2013-06-51 does not require all of the same actions as this proposed AD.

Requests Regarding Compliance Time for Hoist Replacement

The individual commenter requested that the FAA change part of the compliance time for replacing a hoist without the number “4” as the first digit of its S/N from 55 operating hours to 55 hours since the last clutch overhaul. The commenter’s hoist has 89 operating hours and was overhauled 2 hours ago; the commenter’s understanding is that such a hoist would need to be replaced immediately when the proposed AD becomes effective.

The FAA disagrees. If the commenter’s hoist has an S/N without the number “4” as the first digit, then at its recent overhaul it was not modified with a new overload clutch assembly. Thus, it is still subject to the unsafe condition. Operators in this situation may, under the provisions of paragraph (h) of this SNPRM, request approval of an alternative method of compliance (AMOC) if sufficient data is submitted to substantiate an acceptable level of safety.

Collins Aerospace stated that the compliance time for converting a hoist to a hoist with a new overload clutch assembly should be 24 months, based on improved risk analysis information from initial load checks and subsequent load checks.

The FAA partially agrees. The FAA also determined that 24 months is an adequate compliance time to mitigate the risk to reasonable levels. However, the FAA proposed a 12-month compliance time after factoring an estimated 12-month processing time before issuance of the final rule of this AD. The FAA did not make any changes to the SNPRM as a result of these comments.

Requests Regarding the Operating Limitations

EASA requested the FAA explain why it did not adopt two of the operating limitations required by EASA AD 2015-0226R5: the limit on the number of persons that can be hoisted, and the warning that exceeding 15° of lateral pendulum angle/helicopter

vertical axis may lead to clutch slippage.

EASA AD 2015-0226R5 limits the number of persons that can be hoisted to two, except when hoisting more persons (such as children) will not exceed the weight limit. The FAA determined that the maximum hoist load limitations described in terms of weight alone, without the extraneous information on the number of persons lifted, are sufficient. The FAA did not propose to include the lateral pendulum angle of the hoist cable with respect to the helicopter's vertical axis after determining that such a limitation would not be measurable or enforceable. The FAA did not make any changes to the SNPRM as a result of this comment.

EASA requested the FAA explain why the proposed AD would require different temperature ranges for the weight limitations than EASA AD 2015-0226R5 and would omit limitations for OAT below -20°C.

The FAA agrees that the maximum hoist load limitations in this proposed AD should be consistent with those in the EASA AD and that this proposed AD should include requirements for all temperatures. Accordingly, the FAA has changed the temperatures in the maximum hoist load limitations in this SNPRM.

Collins Aerospace requested the FAA change the proposed maximum hoist load limitations to distinguishing between non-modified hoists (without the number "4" as the first digit of its S/N) and modified hoists with a new clutch (with the number "4" as the first digit of its S/N). Collins Aerospace stated that after EASA AD 2015-0226R1 was issued, Goodrich performed a series of characterization tests that demonstrated the performance envelope of the modified hoist in various conditions. According to Collins Aerospace, the results of these tests as documented in Goodrich Report No. 49000-1087, Revision A, dated July 31, 2017, indicate that margins are maintained with a less restrictive temperature limitation than those imposed on non-modified hoists.

The FAA disagrees with requiring different maximum hoist load limitations for

non-modified hoists and modified hoists. After reviewing the data in the report referenced by the commenter, the FAA determined it does not demonstrate with an acceptable level of confidence that less restrictive temperature limitations are appropriate for modified hoists.

Request to Allow Additional Load Check Tool

Collins Aerospace requested the FAA change the proposed requirement to use load check tool P/N 49900-889-104 for the cable conditioning and a hoist slip load test to also allow using tool P/N 49900-889-103. Collins Aerospace stated that both are tool kits, with P/N 49900-889-104 having all of the components of P/N 49900-889-103, plus extra components so that P/N 49900-889-104 can be used to perform tests on helicopters with older versions of the large hook damper. Collins Aerospace further stated that helicopters with newer model dampers and all other platforms can utilize tool P/N 49900-889-103, which is expected to supersede tool P/N 49900-889-104 as the older dampers are removed from service.

The FAA agrees and has revised this SNPRM accordingly.

Request Regarding Hoist Load Check (Test) after Installation

EASA requested the FAA explain why the proposed AD does not require accomplishing a hoist load check (test) after installing a new clutch, as required by the EASA AD. EASA stated the test will check for any uncertainties that might develop during handling and storage before installation.

The FAA is not aware of any modified hoists with a new clutch (having a number “4” as the first digit of the S/N) failing the hoist load test. Accordingly, the FAA determined there is insufficient data to support proposing this as an additional requirement.

Request Regarding Compliance Time for Initial Load Test

Collins Aerospace requested that, for certain hoists, the FAA extend the

compliance time for the initial hoist slip load test from 30 days to six months. In support of this request, Collins Aerospace stated the 30 day compliance time calculation is appropriate for non-modified hoists that have: no improvements from manufacture, repair, or overhaul after February 1, 2018; not complied with ASB 44301-10-18 or ASB 44301-10-15; or not had a load check performed. Collins Aerospace further stated that enough load check tools may not be available to test all hoists that would be affected by the proposed AD.

The FAA disagrees with changing the proposed AD to account for manufacturing improvements because not enough data has been provided to substantiate the commenter's request. However, the FAA agrees with providing an allowance for the initial instance of the cable inspections and hoist slip load test proposed by this AD if those actions have been accomplished within the last six months. The FAA has changed the proposed compliance time accordingly.

Request Regarding the Costs of Compliance

Collins Aerospace stated that replacing a hoist is not necessary as the clutch can be replaced instead for an average cost of \$24,000, plus 8 hours of labor. Collins Aerospace also stated that the cost for the field load check tool is \$11,171.

The FAA agrees that replacing a hoist without the number "4" as the first digit of its S/N, as required by paragraph (g)(1) of this SNPRM, may be accomplished by modifying the hoist with the new overload clutch assembly and re-identifying it with a "4" as the first digit of the S/N. The FAA has updated the Costs of Compliance section accordingly.

Comment Regarding Figure 4

Collins Aerospace stated that although a figure 4 is referenced in the Required Actions of the NPRM, no figure 4 appears in the NPRM.

The FAA agrees. Figure 4 to paragraph (e)(2)(iv) of the NPRM (now Figure 4 to

paragraph (g)(2)(iv) of this SNPRM), which is necessary to accomplish the required actions, was inadvertently omitted in reproduction when the NPRM published in the *Federal Register*.

Other Differences Between the NPRM and the SNPRM

In this SNPRM, the FAA has added “total” to the compliance time and usage thresholds for hoists without a “4” as the first digit of its S/N to clarify that it is the total accumulation of time on the hoist that would trigger the proposed requirement to replace the hoist. In this SNPRM, the FAA has also added the metric conversion (kg) for the hoist ratings in the first two figures.

Lastly, this SNPRM uses an updated format. As a result, paragraph identifiers have changed.

FAA’s Determination

Affected helicopters include helicopters that have been approved by the aviation authorities of Canada, Italy, France, and Germany and are approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is issuing this SNPRM after determining the unsafe condition described previously is likely to exist or develop on other helicopters of the same type design. Certain changes described above expand the scope of the NPRM. As a result, it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

Related Service Information Under 1 CFR Part 51

The FAA reviewed ASB 44301-10-18, which specifies maximum hoist load limitations with respect to ambient temperature and describes actions and conditions that could reduce the capacity of the clutch. This service information also specifies procedures for inspecting the cable and inspecting the clutch by performing a cable

conditioning lift and a hoist slip load test.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Proposed AD Requirements in this SNPRM

This proposed AD would require:

- Replacing any hoist without a “4” as the first digit of its S/N within 12 months after the effective date of this AD or before the hoist accumulates 55 total operating hours, 1,200 total hoist cycles (cycles), or 1,600 total hoist lifts (lifts), whichever occurs first.
- Installing placards and revising the existing RFM for your helicopter to add maximum hoist load limitations, an excessive maneuvering warning, a maximum sustained bank angle in turn, and a prohibition on operating the hoist in the event of a partial peel out.
- Deactivating or removing any hoist that experiences a partial peel out from service.
- Reviewing records for cable load-testing that was previously performed, and depending on the findings, replacing the cable.
- Repetitively inspecting the cable, inspecting the clutch by performing a cable conditioning lift and hoist slip load test, inspecting the cable a second time, reporting certain information to the FAA, and depending on these inspection outcomes, replacing the cable or removing the hoist from service.

This proposed AD would also prohibit installing an affected replacement or original installation hoist that has not been re-identified to indicate it has an improved clutch assembly.

Installation of a hoist with an improved overload clutch assembly, which is indicated by having a “4” as the first digit of its S/N, would not terminate the actions required by this proposed AD.

Differences Between this SNPRM and the EASA AD

EASA AD 2015-0226R5 requires repetitively replacing the hoist with a modified hoist, whereas this proposed AD would require a one-time replacement of the hoist with a modified hoist that has the improved clutch assembly installed. EASA AD 2015-0226R5 requires adding a placard or operational limitation to the RFM warning that exceeding 15° of lateral pendulum angle/helicopter vertical axis can lead to clutch slippage, and this proposed AD would not. EASA AD 2015-0226R5 requires adding an operating limitation to the RFM limiting the number of persons who can be hoisted, whereas this proposed AD would not. This proposed AD would require replacing the cable before the next hoist operation if a cable has previously been load-tested at more than 1,500 lbs or at an unknown weight during at least one cable pull, while EASA AD 2015-0226R5 requires this replacement during multiple cable pulls. This proposed AD would require visually inspecting and measuring the diameter of the cable before and after performing a cable conditioning and a hoist slip load test, whereas EASA AD 2015-0226R5 does not. This proposed AD would require performing the cable conditioning and hoist slip load test within 30 days after the effective date of this AD, unless already done within the last 6 calendar months, and thereafter at intervals not to exceed 6 months, 400 lifts, or 300 cycles. EASA AD 2015-0226R5 specifies performing the hoist slip load test according to the compliance time of the design approval holder instead. After the installation (not reinstallation) of a modified hoist, EASA AD 2015-0226R5 requires performing an initial hoist load check/test prior to hoisting operation, whereas this proposed AD would not.

Interim Action

The FAA considers this proposed AD would be an interim action. The inspection reports that would be required by this proposed AD will enable better insight into the condition of the hoists, and eventually be used to develop final action to address the unsafe condition. Once final action has been identified, the FAA might consider further rulemaking.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 2,911 hoists installed on helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Replacing a clutch would take about 8 work-hours and parts would cost about \$24,000 for an estimated cost of \$24,680 per hoist. Alternatively, replacing a hoist would take about 8 work-hours and parts would cost about \$200,000 for an estimated cost of \$200,680 per hoist.

Revising the existing RFM for your helicopter and installing placards would take about 0.5 work-hour for an estimated cost of \$43 per helicopter and \$125,173 for the U.S. fleet.

Deactivating or removing a hoist that experiences a partial peel out would take about 2 work-hours for an estimated cost of \$170.

Reviewing records would take about 0.5 work-hour for an estimated cost of \$43 per helicopter and \$125,173 for the U.S. fleet.

Inspecting the cable and performing a cable conditioning lift and hoist slip load test would take about 2 work-hours for an estimated cost of \$170 per helicopter and \$494,870 for the U.S. fleet per inspection cycle. A (field) load check tool would cost about \$11,171. Reporting the hoist slip load test information would take about 0.25 work-hour for a cost of \$21 per helicopter and \$61,131 for the U.S. fleet per reporting cycle.

Replacing the cable would take about 3 work-hours and parts would cost about \$3,150 for a total replacement cost of \$3,405 per hoist.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to take approximately 0.25 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Goodrich Externally-Mounted Hoist Assemblies: Docket No. FAA-2020-1120; Project Identifier 2019-SW-056-AD.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) action by [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to helicopters, certificated in any category, with an externally mounted Goodrich hoist assembly (hoist) with a part number (P/N) or base P/N listed under the Hoist Family column in Table 1 of Goodrich Alert Service Bulletin No. 44301-10-18, Revision 6, dated October 10, 2016 (ASB 44301-10-18 Rev 6), installed. An affected hoist may be installed on but not limited to the following:

Note 1 to the introductory text of paragraph (c): The hoist P/N may be included as a component of a different part-numbered kit.

(1) Airbus Helicopters (previously Eurocopter France) Model AS332L, AS332L1, AS332L2, AS350B2, AS350B3, AS365N3, and EC225LP helicopters;

(2) Airbus Helicopters Deutschland GmbH (AHD) (previously Eurocopter Deutschland GmbH) Model EC135P1, EC135P2, EC135P2+, EC135P3, EC135T1, EC135T2, EC135T2+, EC135T3, MBB-BK 117 C-2, and MBB-BK 117 D-2 helicopters;

(3) Bell Textron Canada Limited (previously Bell Helicopter Textron Canada Limited) Model 429 and 430 helicopters;

(4) Bell Textron Inc. (previously Bell Helicopter Textron Inc.) Model 205A, 205A-1, 205B, 212, 412, 412CF, and 412EP helicopters;

(5) Leonardo S.p.a. (previously Finmeccanica S.p.A., AgustaWestland S.p.A) Model A109, A109A, A109A II, A109C, A109E, A109K2, A109S, AB139, AB412, AB412 EP, AW109SP, and AW139, helicopters;

(6) MD Helicopters, Inc. (MDHI) Model MD900 helicopters;

(7) Transport and restricted category helicopters, originally manufactured by Sikorsky Aircraft Corporation, Models S-61A, S-61L, S-61N, S-76A, S-76B, S-76C, S-76D, and S-92A; and

(8) Restricted category Model HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P helicopters.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 2500, Cabin Equipment/Furnishings.

(e) Unsafe Condition

This AD was prompted by hoists failing lower load limit inspections. The FAA is issuing this AD to prevent failure of the hoist overload clutch. The unsafe condition, if not addressed, could result in an in-flight failure of the hoist, which could result in injury to a person being lifted.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) For a hoist without the number “4” as the first digit of its serial number (S/N):

(i) For hoists that use operating hours to monitor hoist operation, within 12 months after the effective date of this AD or before the hoist accumulates 55 total hoist operating hours, whichever occurs first, replace the hoist. For purposes of this AD, hoist operating hours are counted anytime the hoist motor is operating.

(ii) For hoists that use hoist cycles (cycles) to monitor hoist operation, within 12 months after the effective date of this AD or before the hoist accumulates 1,200 total cycles, whichever occurs first, replace the hoist. For purposes of this AD, a cycle is counted anytime the cable is extended and then retracted a minimum of 16 feet (5 meters) during flight or on the ground, with or without a load.

(iii) For hoists that use hoist lifts (lifts) to monitor hoist operation, within 12 months after the effective date of this AD or before the hoist accumulates 1,600 total lifts, whichever occurs first, replace the hoist. For purposes of this AD, a lift is counted anytime the cable is unreeled or recovered or both with a load attached to the hook, regardless of the length of the cable that is deployed or recovered. An unreeling or recovery of the cable with no load on the hook is not a lift. If a load is applied for half an operation (i.e. unreeling or recovery), it must be counted as one lift.

(2) For all hoists identified in the introductory text of paragraph (c) of this AD, before further flight, install placards and revise the existing Rotorcraft Flight Manual (RFM) for your helicopter by inserting a copy of this AD or by making pen-and-ink changes in Section 2, Limitations, of the RFM Supplement for the hoist as follows:

(i) For 500 pound (lb) rated hoists, install a placard with the information in Figure 1 to paragraph (g)(2)(i) of this AD in full view of the hoist operator and add the information in Figure 1 to paragraph (g)(2)(i) of this AD to the existing RFM for your helicopter:

<p>500 lb (227 kg) Rated Hoist</p> <p>OAT above -4°F (-20°C): Maximum hoist load 450 lbs (204 kg)</p> <p>OAT at or below -4°F (-20°C): Maximum hoist load 400 lbs (181 kg)</p>
--

Figure 1 to Paragraph (g)(2)(i)

(ii) For 600 lb rated hoists, install a placard with the information in Figure 2 to paragraph (g)(2)(ii) of this AD in full view of the hoist operator and add the information in Figure 2 to paragraph (g)(2)(ii) of this AD to the existing RFM for your helicopter:

600 lb (272 kg) Rated Hoist

OAT above 32°F (0°C): Maximum hoist load 550 lbs (249 kg)

OAT at or below 32°F (0°C): Maximum hoist load 500 lbs (227 kg)

Figure 2 to Paragraph (g)(2)(ii)

(iii) For 500 and 600 lb rated hoists, install a placard with the information in Figure 3 to paragraph (g)(2)(iii) of this AD in full view of the pilot and add the information in Figure 3 to paragraph (g)(2)(iii) of this AD to the existing RFM for your helicopter.

Hoist Operations

Warning: Excessive maneuvering with extended cable and load on the hook may cause uncommanded peel out of the cable.

Maximum sustained bank angle in turn is 20°

Figure 3 to Paragraph (g)(2)(iii)

(iv) For 500 and 600 lb rated hoists, install a placard with the information in Figure 4 to paragraph (g)(2)(iv) of this AD in full view of the pilot and add the information in Figure 4 to paragraph (g)(2)(iv) of this AD to the existing RFM for your helicopter:

Hoist - Partial Peel Out

If a partial peel out occurs, before next flight, cease using the hoist. A partial peel out occurs when 20 inches (0.5 meter) or more of the hoist cable reels off of the hoist cable drum in one overload clutch slip incident.

Figure 4 to Paragraph (g)(2)(iv)

(3) For all hoists identified in the introductory text of paragraph (c) of this AD, as of the effective date of this AD, if a partial peel out occurs, deactivate or remove the hoist from service before further flight. For purposes of this AD, a partial peel out occurs when 20 inches (0.5 meter) or more of the hoist cable reels off of the hoist cable drum in one overload clutch slip incident.

(4) For all hoists identified in the introductory text of paragraph (c) of this AD, within 30 days after the effective date of this AD, review the helicopter's hoist slip load test records. If the cable was load-tested at more than 1,500 lbs or at an unknown weight during one or more cable pulls, replace the cable with an airworthy cable before the next hoist operation.

(5) For all hoists identified in the introductory text of paragraph (c) of this AD, within 30 days after the effective date of this AD, unless already done within the last 6 calendar months, and thereafter at intervals not to exceed 6 months, 400 lifts, or 300 cycles, whichever occurs first:

(i) Visually inspect the first 18 inches (45 cm) of the cable from the hook assembly for broken wires and necked down sections. If there is a broken wire or necked down section, replace the cable with an airworthy cable before further flight.

(ii) Within the first 18 inches (45 cm) of the cable from the hook assembly, measure the diameter of the cable at the most necked down area. If the diameter measurement is less than 0.185 inch (4.7 mm), replace the cable with an airworthy cable before further flight.

(iii) Using load check tool P/N 49900-889-103 or 49900-889-104, perform a cable conditioning and a hoist slip load test by following the Accomplishment Instructions, paragraphs 3.C.(1) through 3.C.(3)(g) of ASB 44301-10-18 Rev 6. If the average of the five test values is less than the limit shown in Table 2 for 600 lb rated hoists or Table 3

for 500 lb rated hoists of ASB 44301-10-18 Rev 6, remove the hoist from service before further flight.

(iv) Visually inspect the first 30 feet (10 meters) of the cable from the hook assembly for broken wires, necked down sections, kinks, bird-caging, flattened areas, abrasion, and gouging. It is permissible for the cable to have a slight curve immediately after performing the hoist slip load test. If there is a broken wire, necked down section, kink, or any bird-caging; or if there is a flattened area, any abrasion, or a gouge that exceeds allowable limits, replace the cable with an airworthy cable before further flight.

(v) Repeat the actions specified in paragraphs (g)(5)(i) and (ii) of this AD. If there is a broken wire or necked down section or the cable diameter measurement is less than 0.185 inch (4.7 mm), replace the cable with an airworthy cable before further flight.

(6) Within 30 days after accomplishing the hoist slip load test, report the information requested in Appendix 1 to this AD by email to ASB.SIS-CA@utas.utc.com; or mail to Goodrich, Collins Aerospace; 2727 E. Imperial Hwy., Brea, CA 92821.

(7) As of the effective date of this AD, do not install as a replacement part or as an original installation an externally-mounted hoist with a P/N identified in the introductory text of paragraph (c) of this AD unless it has an improved overload clutch assembly with the number “4” as the first digit of the S/N.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (i)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Kristi Bradley, Aerospace Engineer, General Aviation & Rotorcraft Section, International Validation Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email kristin.bradley@faa.gov.

(2) For Goodrich service information identified in this AD, contact Collins Aerospace; 2727 E Imperial Hwy., Brea, CA 92821; telephone (714) 984-1461. You may view this referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(3) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD 2015-0226R5, Revision 5, dated July 23, 2020. You may view the EASA AD on the Internet at <https://www.regulations.gov> in Docket No. FAA-2020-1120.

Hoist Slip Load Test Results (sample format)

Provide the following information by email to ASB.SIS-CA@utas.utc.com; or mail to Goodrich, Collins Aerospace; 2727 E. Imperial Hwy., Brea, CA 92821.

Helicopter Owner/Operator Name:

Email Address:

Telephone Number:

Helicopter Model and Serial Number:

Hoist Part Number:

Hoist Serial Number:

Time since Last Hoist Overhaul (months):

Hoist Operating Hours:

Hoist Cycles:

Hoist Lifts:

Date and Location Test was Accomplished:

Point of Contact for Additional Information:

Air Temperature:

Gearbox Lubricant:

Hoist Slip Load Test Value 1:

Hoist Slip Load Test Value 2:

Hoist Slip Load Test Value 3:

Hoist Slip Load Test Value 4:

Hoist Slip Load Test Value 5:

Hoist Slip Load Test Averaged Test Value:

Any notes or comments:

Issued on September 22, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2021-21076 Filed: 9/29/2021 8:45 am; Publication Date: 9/30/2021]